

**REMARKS**

Claims 11-25 are all the claims pending in the application. New claims 21-25 are added, above, to further define the invention. Claims 11-15 stand rejected on prior art grounds. Claims 16-20 are allowed. Applicants respectfully traverse these rejections based on the following discussion.

**I. The Prior Art Rejections****A. The Rejection Based on Murphy and Higgins**

Claims 11-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy et al. (U.S. Patent No. 5,855,755), hereinafter referred to as Murphy in view of Higgins, III (U.S. Patent No. 5,492,863), hereinafter referred to as Higgins. Applicants respectfully traverse this rejection because neither Murphy, nor Higgins teaches or suggests patterning a conductive polymer directly on an exterior conductor level of an integrated circuit chip. Applicants note that independent claims 11 and 21 define "patterning a conductive polymer directly on an exterior conductor level of said integrated circuit chip."

As noted in the Office Action, Murphy only discloses forming an electrically conducting polymer resistor on a conducting or non-conducting substrate surface, and Murphy does not teach patterning a conductive polymer directly on the exterior conductor level of an integrated circuit chip. In order to cure this deficiency, the Office Action makes reference to Higgins. More specifically, the Office Action argues that the forming of the conductive bumps 24 (Figure 4), that are formed by patterning the material 18 in Figure 3 of Higgins, constitutes the patterning of a structure on an integrated circuit chip. However, Applicants note that the conductive polymer bumps 24 in Higgins comprise conductive contacts that are used to join the final metallization layer 14 to external structures. More specifically, the conductive polymer bumps 24 allow external devices to make electrical contact with the final metallization layer. The

conductive polymer bumps 24 do not comprise passive devices. To the contrary, independent claims 11 and 21 require that "said patterning produces passive devices."

The Office Action argues that Murphy discloses that the conductive polymer resistor can be utilized as active and passive devices; however, nowhere does Murphy teach or suggests that the passive devices should be formed directly on an exterior conductor level of an integrated circuit chip, as in the claimed invention. The Office Action argues that it would have been obvious to substitute passive devices in place of the electrical contacts 24 of Higgins in the teachings of Murphy. However, there are a number of problems with such a modification of Murphy and/or Higgins. One such problem is that the modification of the electrical contacts in Higgins renders the device in Higgins inoperable. The electrical contacts 24 in Higgins are needed to allow external devices to make electrical contact with the final metallization layer 14. Substituting passive devices in place of the electric contacts 24 of Higgins renders the device in Higgins inoperable for its intended purpose because such a modification would not allow exterior devices to make electrical contact to the final metallization layer 14. When a proposed modification of a known structure makes the known structure inoperable, it would not have been obvious to perform such a modification on the known structure.

Further, there is no teaching or suggestion in the prior art of record as to why one would have been motivated to substitute the passive devices for the electrical contacts 24 in Higgins. The Office Action does not explain wherein the motivation to modify Murphy and/or Higgins is located. Instead, at the bottom of page 3 of the Office Action, the rejection states that Higgins teaches patterning the conductive polymer from layer 18 and then at the top of page 4 of the Office Action a conclusion is reached that it would have been obvious to substitute the passive devices of Murphy in place of the electric contacts of Higgins. In other words there is no explanation or supporting documentation as to why one ordinarily skilled in the art would have been motivated to make the substitution suggested in the Office Action.

Simply put, Murphy discloses that an electrically conducting polymer can be utilized to form passive elements and Higgins teaches using a conductive polymer to form contacts to a final metalization layer; however, there is no motivation or teaching that would lead one ordinarily skilled in the art to pattern passive devices from a

conductive polymer directly on an exterior conductor level of an integrated circuit chip as claimed. Therefore, Applicants respectfully submit that independent claims 11 and 21 are not taught or suggested by the prior art of record because the prior art of record does not teach or suggest "patterning a conductive polymer directly on an exterior conductor level of said integrated circuit chip, wherein said patterning produces passive devices." Further, dependent claims 12-15 and 22-25 are similarly patentable, not only by virtue of their dependency from a patentable independent claim, but also by virtue of the additional features the dependent claims define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

**B. The Rejection Based on Murphy, Higgins, and Hansen**

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy et al. (U.S. Patent No. 5,855,755), hereinafter referred to as Murphy in view of Higgins, III (U.S. Patent No. 5,492,863), hereinafter referred to as Higgins, and Hansen et al. (U.S. Patent No. 4,115,750) hereinafter referred to as Hansen.

Hansen is referenced for the limited purpose of teaching the use of a serpentine shape for a thin film resistor and the Office Action does not propose that Hansen teaches or suggests "patterning a conductive polymer directly on an exterior conductor level of said integrated circuit chip, wherein said patterning produces passive devices" as defined by independent claims 11 and 21. Therefore, the proposed combination of Murphy, Higgins, and Hansen would not teach or suggest the invention defined by independent claims 11. Therefore, independent claim 11 is patentable over the proposed combination and dependent claim 14 is patentable not only because it depends from independent claim 11, but also because of the additional features dependent claim 14 defines. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

### **C. The Rejection Based on Murphy, Higgins, and Yoder**

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy et al. (U.S. Patent No. 5,855,755), hereinafter referred to as Murphy in view of Higgins, III (U.S. Patent No. 5,492,863), hereinafter referred to as Higgins, and Yoder (U.S. Patent No. 4,409,608).

Yoder is referenced for the limited purpose of teaching the use of an interdigitated capacitor and the Office Action does not propose that Yoder teaches or suggests "patterning a conductive polymer directly on an exterior conductor level of said integrated circuit chip, wherein said patterning produces passive devices" as defined by independent claims 11 and 21. Therefore, the proposed combination of Murphy, Higgins, and Yoder would not teach or suggest the invention defined by independent claims 11. Therefore, independent claim 11 is patentable over the proposed combination and dependent claim 15 is patentable not only because it depends from independent claim 11, but also because of the additional features dependent claim 15 defines. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

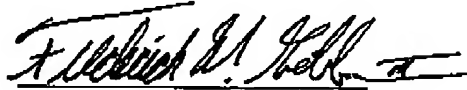
### **II. Formal Matters and Conclusion**

In view of the foregoing, Applicants submit that claims 11-25, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit  
Account Number 50-0510.

Respectfully submitted,



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